

WHAT IS CLAIMED IS:

1. A connector assembling construction for connecting a moving-side connector (20) on a module (M) and a waiting-side connector (40) on a body (B) as the module (M) is assembled with the body (B), wherein:

the moving-side connector (20) is mounted on the module (M) with a connecting surface (20CS) thereof having a normal vector (20N) inclined by less than about 20° with respect to a vertical direction (VD),

the waiting-side connector (40) is mounted on the body (B) with a connecting surface (40CS) thereof having its normal vector (40N) inclined by less than about 20° with respect to the vertical direction (VD), and

the module (M) is displaced along a connecting direction (CD) to connect the moving-side connector (20) with the waiting-side connector (40).

2. The connector assembling construction of claim 1, wherein a guiding means (10) is provided to guide the module (M) to be assembled with the body (B) by being moved substantially horizontally and then displaced down.

3. The connector assembling construction of claim 1, wherein one of the moving-side connector (20) and the waiting-side connector (40) has a floating mechanism (36) for enabling the respective connector (20; 40) to be displaced with respect to one of the module (M) and the body (B) in a direction intersecting the connecting direction (CD) of the two connectors (20, 40).

4. The connector assembling construction of claim 3, wherein one (20) of the moving-side connector (20) and the waiting-side connector (40) includes a receptacle (22) into which the other connector (40) is fittable, and a guiding portion (26) slanted to be widened is formed at an opening edge of the receptacle (22).

5. The connector assembling construction of claim 1, wherein a cam means (28; 44) is provided for assisting the connection of the moving-side connector (20) and the waiting-side connector (40).

6. A connector assembling construction for connecting a moving-side connector (20) to a waiting-side connector (40) as a module (M) is assembled with a body (B), comprising:

means (46, 47) for mounting the waiting-side connector (40) to the body (B) with a connecting surface (40CS) of the waiting-side connector (40) facing up;

means for mounting the moving-side connector (20) to the module (M) with a connecting surface (20CS) of the moving-side connector (20) facing down;

means for moving the module (M) into a position where the connecting surface (20CS) of the moving-side connector (20) is substantially opposed to and above the connecting surface (40CS) of the waiting-side connector (40);

means for guiding the module (M) down along a connecting direction (CD) toward the body (B) with assistance of gravity; and

floating means for floating at least one of said moving-side connector (20) and said waiting-side connector (40) in at least one direction (TD, FBD) substantially transverse to the connecting direction (CD) for aligning the connecting surface (20CS) of the moving-side connector (20) with the connecting surface (40CS) of the waiting-side connector (40) so that movement of the module (M) substantially along the connecting direction (CD) towards the body (B) connects the moving-side connector (20) to the waiting-side connector (40).

7. An assembling method for connecting a moving-side connector (20) in a module (M) and a waiting-side connector (40) on a body (B) as the module (M) is assembled with the body (B), comprising the following steps:

mounting the moving-side connector (20) on the module (M) with a connecting surface (20CS) thereof having a normal vector (20N) inclined by less than about 20° with respect to a vertical direction (VD);

mounting the waiting-side connector (40) on the body (B) with a connecting surface (40CS) thereof having a normal vector (40N) inclined by less than about 20° with respect to the vertical direction (VD); and

displacing the module (M) along a connecting direction (CD) to connect the moving-side connector (20) with the waiting-side connector (40).

8. The assembling method of claim 7, further comprising a step of guiding the module (M) substantially horizontally and then down.

9. The assembling method of claim 7, further comprising a step of allowing at least one of the moving-side connector (20) and the waiting-side connector (40) to be displaced with respect to the module (M) or the body (B) in a direction intersecting the connecting direction (CD) of the two connectors (20, 40).

10. The assembling method of claim 9, wherein one (20) of the moving-side connector (20) and the waiting-side connector (40) includes a receptacle (22) into which the other connector (40) is fittable, and a guiding portion (26) slanted to be widened in proximity to an opening edge of the receptacle (22).

11. The assembling method of claim 7, further comprising assisting the connection of the moving-side connector (20) and the waiting-side connector (40) by a cam action.

12. An assembling method for connecting a moving-side connector (20) on a module (M) and a waiting-side connector (40) on a body (B) as the module (M) is assembled with the body (B), comprising:

mounting the waiting-side connector (40) on the body (B) with a connecting surface (40CS) thereof facing substantially up; and

mounting the moving-side connector (20) on the module (M) with a connecting surface (20CS) facing down;

displacing the module (M) into a position where the connecting surface (20CS) of the moving-side connector (20) is opposed to the connecting surface (40CS) of the waiting side connector (40);

guiding the module (M) down along a connecting direction (CD) toward the body (B) with assistance of gravity; and

floating at least one of the moving-side connector (20) and the waiting-side connector (40) in at least one direction (TD, FBD) transverse to the connecting direction (CD) for aligning the moving-side connector (20) to the waiting-side connector (40), such that said moving-side connector (20) connects with the waiting-side connector (40) as the module (M) is assembled down onto the body (B).